

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-15 remain pending, claims 1 and 12 being independent. In this Reply, Applicants have amended the specification, drawings, and claims. The amendments to the specification have been made to correct minor informalities. The drawing corrections have been made to address the Examiner's objection to the drawings and to correct a minor informality. The claim amendments have been made to remove the phrase "means" from the claims, such that the claims should not invoke 35 U.S.C. § 112, sixth paragraph. Such amendments do not narrow the scope of the claims.

Objection to the Drawings

In reply to the Examiner's objection to the drawings based on the Examiner's view that Figs. 9-12 should be designated by a legend such as --prior art--, Applicants have made the appropriate correction and respectfully request that the objection to the drawings be withdrawn.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication that claims 3, 4, and 6-11 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. For at least the reasons set

forth below, Applicants respectfully submit that all pending claims should be indicated as allowable over the prior art.

Prior Art Rejections

Claims 1, 2, 5, and 12-14 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by *Schwartz* (U.S. Patent 3,980,819). Claim 15 stands rejected under 35 U.S.C. § 103 as allegedly being unpatentable over *Schwartz* in view of admitted prior art Fig. 9 discussed in the Background section of the present application. These rejections are respectfully traversed.

Independent claim 1 is directed to a screen-noise eliminating apparatus comprising: a beam-spot-length control element for increasing or decreasing the vertical length of a beam spot on a display screen generated by an electron beam of a cathode-ray tube for displaying a TV signal; a vertical enhancement element for enhancing a given vertical-direction spatial frequency characteristic of the TV signal; and a noise elimination control element for controlling the beam-spot-length control element and the vertical enhancement element so as to compensate the vertical-direction spatial frequency characteristic according to the increase or decrease of the beam spot length.

Independent claim 12 is directed to a cathode-ray tube display apparatus comprising: a cathode-ray tube for displaying a TV signal; an electron-beam driving element for driving an electron beam of the cathode-ray tube; and a screen-noise eliminating

apparatus that has the features as essentially recited in independent claim 1.

Thus, for the screen-noise eliminating apparatus recited in claim 1 and claim 12, a beam-spot-length control element increases or decreases the vertical length of a beam spot and a noise-elimination control element controls the beam-spot-length control element and a vertical enhancement element so as to compensate a vertical-direction spatial frequency characteristic according to the increase or decrease of the beam spot length.

The applied reference, *Schwartz*, discloses a technique for enhanced sharpness of television images. More specifically, the apparatus described in *Schwartz* attempts to solve the following problem discussed in the Background section:

In most cathode ray tubes, the spot size of the electron beam increases significantly as the beam current is increased. Therefore, when a large black-to-white video transition occurs, i.e., when a TV image includes a white area immediately following a black area, the spot size of the beam grows concurrently with the increase in the luminance signal. To a television viewer, the overall effect of the growth of the spot size is that, in the case of a white stripe on a black field, for example, the edges of the stripe will appear to be blurred with the white area expanded because of the large spot size and the black area correspondingly reduced.

As discussed for example at col. 5, lines 1-18 (cited by the Examiner), *Schwartz* addresses this drawback of luminance-based fluctuations in beam spot size by modulating the scanning velocity of the CRT electron beam when video amplitude transition occurs. As

seen for example by the comparison of Figs. 3 and 4, this modulation of scanning velocity adjusts the leading edge of the beam spot so as to prevent the blurring effect seen in Fig. 3.

As compared to the presently claimed invention, however, *Schwartz* does not include a noise-elimination control element that controls a beam-spot-length control element that increases or decreases the vertical length of a beam spot on the display.

According to MPEP § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989).

At least in view of the above, Applicants respectfully submit that *Schwartz* fails to anticipate independent claims 1 or 12, or any claim depending therefrom. Furthermore, the Examiner's reliance on prior art Fig. 9 fails to make up for the deficiencies of *Schwartz*.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejections based on *Schwartz*.

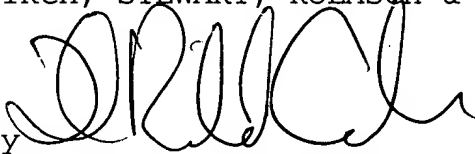
Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s): Replacement Sheets for Figs. 1 and 9-12

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